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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,179	03/30/2004	Masaaki Shimizu	8007-1060	3341

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EXAMINER

ANGEBRANNDT, MARTIN J

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

✓

Office Action Summary	Application No. 10/812,179	Applicant(s) SHIMIZU ET AL.	
	Examiner Martin J. Angebrannt	Art Unit 1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/17/04 & 9/10/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/17/04 & 9/10/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2 and 7-8 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Farid et al. '530.

See dye PS-40 in column 25-26. The formation of a photoresist containing the dyes and coating these on a copper substrate is disclosed and was exposed with the absorption being at 610 nm and 9-10 steps remaining. (see table data and 17/1-18/68). Note also dyes PS 41 and 42 which have absorptions of 604 and 605 nm.

While the applicant may be thinking of a digital recording media, such as CDs, DVDs and the like, claims 7-8 embrace a photosensitive recording materials applied to a substrate.

4. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Haley et al. '956.

See dye 17 in column 9-10.

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5. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tominaga et al. JP 2002-228829, in view of Farid et al. '530 combined with (Sato et al. JP 03-188063 or Satoh et al. '909)

Tominaga et al. JP 2002-228829 (machine translation) teaches compounds embraced by formula I., where R2 and R3 may be alkyl, alkenyl, alkynyl and the like [0010-0011]. These are used in forming filters for various displays [0002]. The dyes are coated onto glass plates to form the filter [0059].

Sato et al. JP 03-188063 teaches asymmetric squarylium dyes having the formula I (page 1) and are describes as having high absorption, light resistance and solubility in organic solvents. (abstract). These are shown to be superior to symmetric dyes A-C (page 5) in the data in the table on page 6. The examiner does not have a translation of this reference, if the applicant has one made, the examiner would appreciate a copy with the subsequent response.

Satoh et al. '909 teach an asymmetric squarylium dyes used in optical recording media or filters (1/12-28). Other dyes have the disadvantage of low solubility. (1/36-41). The asymmetric dyes of the invention are shown to have higher stability compared to other dyes, including dye a , a symmetric cyanine dye in table 2.

It would have been obvious to one skilled in the art to modify the filter example of Tominaga et al. JP 2002-228829 by replacing the dye used, which is similar to dyes RP-41 and PS-32 of Farid et al. '530 with dye PS-40 which has a similar absorption with a reasonable expectation of forming a useful optical filter and to the dye of Sato et al. JP 03-188063 which has a high solubility and superior properties to similar symmetric dyes.

While the applicant does have some comparative data relating to solubility, it is not clear that this benefit is realized for the various solvents used in coating filters and optical recording media. Further, the teachings of Sato et al. JP 03-188063 or Satoh et al. '909 seem to show this benefit to be obvious.

6. Claims 1-2 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farid et al. '530, in view of Nishimura et al. JP 63-049758.

Nishimura et al. JP 63-049758 teaches optical recording media teaches the use of various terminal moieties for Z with squarilium dyes (pages 3), including benzothiazole, , benzooxazole (pages 5), benzoselenazole (page 6), benzodiazole, and indolene (page 7).

It would have been obvious to one skilled in the art to modify the dyes PS-40 of Farid et al. '530 by using terminal moieties, in place of the 2- indolene, such as benzothiazole, , benzooxazole, benzoselenazole or benzodiazole with a reasonable expectation of forming a useful dye and photoresist composition containing it based upon the disclosure of equivalence of these terminal moieties within Nishimura et al. JP 63-049758.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

JP 02-145387. See dye V on page 4.

Schmidt, 'Reaktion von quadratsäure und quadratsäure-derivaten', Synthesis pp. 961-994 (12/1980) teaches various squarilium dyes. (see pages 984)

JP 63-235370 teaches squarilium dyes used in filters

Satoh et al. '849 and Shimizu et al. EP 1152001 teach squarilium dyes used in optical recording media.

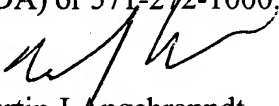
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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin J. Angebranndt whose telephone number is 571-272-1378.

The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Martin J. Angebranndt
Primary Examiner
Art Unit 1756

11/17/2006